



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,870	10/23/2003	Mingheng Wang	GP-304029	6755
7590 General Motors Corporation Legal Staff, Mail Code 482-C23-B21 300 Renaissance Center P.O. Box 300 Detroit, MI 48265-3000			EXAMINER ALAM, FAYYAZ	
			ART UNIT 2618	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	04/23/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/691,870	WANG, MINGHENG
	Examiner Fayyaz Alam	Art Unit 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 January 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 21 - 30 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 21 - 30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This action is in response to applicant's amendment/arguments filed on 1/31/2007. **This action is made FINAL.**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 21 - 24 and 26 - 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alton (U.S. Application # 2003/0190030) in view of Feder et al. (USPN 2004/0142693).**

Consider claim 21, Alton discloses a telematics unit in the vehicle capable of communication but fails to disclose a method of selecting a wireless data channel

comprising steps of: (a) receiving one or more user preference(s) pertaining to usability characteristics of a wireless data channel; (b) ranking a first plurality of wireless data channels from most preferred to least preferred, wherein the ranking is primarily based on the one or more user preference(s); (c) identifying a second plurality of wireless data channels available for communication with the vehicle; (d) comparing the first and second pluralities of wireless data channels; and (e) utilizing the comparison to select the most preferred data channel from the second plurality of wireless data channels.

In the related field of endeavor, Feder discloses a system selection algorithm (SSA) to select the best system available in order to conduct a data session between a mobile station and a network (read as method of selecting a wireless data channel) (see abstract; [0002; 0004]) comprising steps of: receiving a set of preferences from the user (read as one or more user preferences; see [0056]) pertaining to the monitored conditions for the available systems (read as usability characteristics of a wireless data channel; see [0036 - 0037+]); list of allowable systems (read as ranking a first plurality of wireless data channels from most preferred to least preferred; see [0020]) consists of systems classified according to user preferences and monitored conditions (read as usability characteristic) (see [0030; 0056+]); scan environment for available systems (read as identify a second plurality of wireless data channels available for communications) (see fig. 2; [0020]); compare the list of allowable systems (read as first plurality of wireless data channels) with available systems (read as second plurality of wireless data channels) (see fig. 2); and apply preference rules (read as utilizing the comparison) to select the system from most preferred candidates (read as most

preferred data channels from the second plurality of wireless data channels (see fig. 2; [0027 - 0036]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 22** as applied to claim 21, Alton fails to disclose (f) monitoring for additional wireless data channels available for communication with the vehicle; and (g) selecting one of the additional wireless data channels if it is more preferred than the wireless data channel selected in step (e).

In the related field of endeavor, Feder discloses SSA continuously determines the best available system (read as monitoring for additional wireless data channels available for communications); and is prepared to perform handoff whenever the conditions make it necessary (read as selecting one of additional wireless data channels if it is more preferred than the wireless data channel selected in step (e)) (see [0036]; fig. 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 23** as applied to claim 22, Alton fails to disclose

(h) switching from the wireless data channel selected in step (e) to the wireless data channel selected in step (g) without losing the previously transmitted data.

In the related field of endeavor, Feder discloses seamless handoff and make before break handoff (read as switching from the wireless data channel selected in step (e) to the wireless data channel selected in step (g) without losing the previously transmitted data) (see [0004; 0036]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 24** as applied to claim 22, Alton fails to disclose for monitoring additional wireless data channels at a periodic rate that is effectively in real-time.

In the related field of endeavor, Feder discloses monitoring for available systems at discrete time intervals (see [0012]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 26** as applied to claim 21, Alton fails to disclose first plurality of wireless data channels primarily based on the one or more user preference(s) which are selected from the list consisting of: data channel costs, data

channel availability, data channel speed, data channel reliability, and data channel security.

In the related field of endeavor, Feder discloses user preference can be based upon network throughput, signal strength, type of system, etc. (read as first plurality of wireless data channels primarily based on the one or more user preference(s) which are selected from the list consisting of: data channel costs, data channel availability, data channel speed, data channel reliability, and data channel security) (see [0090 - 0092; 0058+]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 27** as applied to claim 21, Alton fails to disclose first plurality of wireless data channels based at least partially on the type of network that each channel is associated with.

In the related field of endeavor, Feder discloses user preference based on type of network (read as ranking based on type network) (see [0091]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 28** as applied to claim 27, Alton fails to disclose first plurality of wireless data channels based at least partially on a network that is selected from the list consisting of: a Wi-Fi network, a satellite radio network, and a cellular network.

In the related field of endeavor, Feder discloses 3G (read as cellular network) and WLAN (read as WiFi network) (read as first plurality of wireless data channels based at least partially on a network that is selected from the list consisting of: a Wi-Fi network, a satellite radio network, and a cellular network) (see [0016]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

Consider **claim 29** as applied to claim 21, Alton fails to disclose (f) using a default data channel if no other higher ranked wireless data channel is available.

In the related field of endeavor, Feder discloses initial system selection mode which selects a system at initialization as mandated by service provider (read as using a default data channel if no other higher ranked wireless data channel is available) (see [0013]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

**Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alton** (**USPN 2003/0190030**) in view of **Schwinke et al.** (**USPN 2004/0203692**).

Consider **claim 25** as applied to claim 21, Alton fails to disclose the one or more user preference(s) at the vehicle telematics unit from a user that provided them over a wireless network.

In the related field of endeavor, Schwinke discloses user preferences are transmitted to the telematics unit through a wireless carrier (read as he one or more user preference(s) at the vehicle telematics unit from a user that provided them over a wireless network) (see [0031]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Schwinke in order to provide flexibility in applying user preferences.

Consider **claim 30**, Alton discloses a telematics unit in the vehicle capable of communication but fails to disclose a method of selecting a wireless data channel comprising steps of: (a) receiving one or more user preference(s) pertaining to usability characteristics of a wireless data channel, the user preference(s) are entered by a user through a website and are wirelessly transmitted to the vehicle; (b) establishing a channel preference table having rankings of a first plurality of wireless data channels, wherein the channel preference table is maintained at the vehicle and ranks the wireless data channels from most preferred to least preferred based on the user preference(s); (c) identifying a second plurality of wireless data channels available for communication with the vehicle; (d) comparing the channel preference table to the

second plurality of wireless data channels and selecting a most preferred channel for transmitting data from the vehicle; (e) monitoring for additional wireless data channels available for communication with the vehicle; and (f) if an additional wireless data channel is identified that is more preferred than that selected in step (d), then switching to the additional wireless data channel.

In the related field of endeavor, Feder discloses a system selection algorithm (SSA) to select the best system available in order to conduct a data session between a mobile station and a network (read as method of selecting a wireless data channel) (see abstract; [0002; 0004]) comprising steps of: receiving a set of preferences from the user (read as one or more user preferences; see [0056]) pertaining to the monitored conditions for the available systems (read as usability characteristics of a wireless data channel; see [0036 - 0037+]); list of allowable systems (read as establishing a channel preference table having rankings of a first plurality of wireless data channels, wherein the channel preference table is maintained at the vehicle from most preferred to least preferred based on user preference; see [0020]) consists of systems classified according to user preferences and monitored conditions (read as usability characteristic) (see [0030; 0056+]); scan environment for available systems (read as identifying a second plurality of wireless data channels available for communications with vehicle) (see fig. 2; [0020]); comparing the list of allowable systems (read as channel preference table) with available systems (read as second plurality of wireless data channels) (see fig. 2) and apply preference rules (read as selecting) to select the system from most preferred candidates (read as most preferred data channels for

transmitting data from the vehicle) (see fig. 2; [0027 - 0036]); SSA continuously determines the best available system (read as monitoring for additional wireless data channels available for communication with the vehicle); and is prepared to perform handoff whenever the conditions make it necessary (read as if an additional wireless data channel is identified that is more preferred than that selected in step (d), then switching to the additional wireless data channel) (see [0036]; fig. 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Feder in order to implement mobile communication capability in a vehicle since a vehicle is already mobile and comprises a telematics or a communication unit.

However, Alton as modified by Feder fail to disclose entering user preference through a website.

In the related field of endeavor, White discloses entering user preference through website using a computer (122) and sending it wirelessly to the phone (118) as seen in fig. 1 (see fig. 1; [0027]; claim 14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton and Feder with the teachings of White in order to implement well known technique and allow more flexibility.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1102. The Examiner can normally be reached on Monday-Friday from 9:30am to 7:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

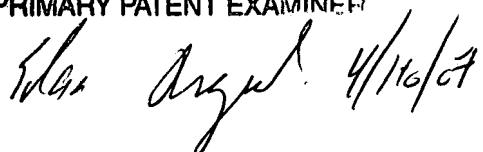
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Fayyaz Alam

April 4, 2007

EDAN ORGAD  
PRIMARY PATENT EXAMINER

 4/16/07